

# Mobile Fish Exhibit bring



Mobile Fish Exhibit in the San Francisco Bay Area.

*DFG photo by Debra Hamilton*



# s big splash to everyone

**O**n this morning, the students are abuzz in their classroom. They have been studying a local watershed for weeks now, doing field visits to the local creek and following up with classroom projects including plant and bug identification, fish prints and writing.

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*By Ethan Rotman*

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But today is special. Today they will have the opportunity to see up close the fish they have been learning about in books; they will stand nose to nose with live fish without even getting their toes wet. Today the Department of Fish and Game's Mobile Fish Exhibit (MFE) is coming to their school.

"This is a great way get our students excited about science and to help them really grasp the concepts we are teaching," says Deborah Walker, science specialist at Buena Vista Elementary School in Walnut Creek. "In the classroom we talk about fish anatomy, habitat, and threats of animals introduced into California, but this

amazing exhibit brings it all into focus for the kids. It is a unique opportunity to have the field trip come to the classroom and the meaning and magic of this giant aquarium cannot be duplicated!"

The students visit the exhibit one by one, first getting the chance to see the fish from all sides, then enjoying an interactive presentation given by Robin Wade, the Department's Mobile Fish Exhibit Coordinator. Using stuffed fish, hand-held specimens and other props, Wade captivates the audience and is able to make the fish come even more alive for the students.

"This is a wonderful asset for our Department," said Ryan Broddrick, DFG Director. "It is one of the most innovative visual tools our Department has created to help the public learn about the importance of healthy habitats. I enjoy watching the faces of kids light up as they peer inside and see a fish swimming by inches away from them."

"We live in a visual society," said Robin Wade, MFE coordinator. "The

more people can see, the better able they are to relate to and understand the information we are presenting to them."

A crayfish backs under a rock as a largemouth bass slides by; a steelhead makes a dash past a rainbow trout as it heads for the surface where a bug has landed on the water's surface; a sturgeon slowly skims the bottom of the tank brushing against a catfish. The students stand wide-eyed and gaping as they watch.

The MFE is one of the newest and most exciting tools DFG uses to help bring its conservation messages to the public.

"It is amazing how adaptable this exhibit is and how many concepts can be taught by it," said Dana Michaels of DFG's Office of Spill Prevention and Response. "I've seen it used to demonstrate the effects of urban runoff and industrial pollution, to show the differences between warm and cold water fishes, and to demonstrate the effects of introduced species on California's habitats. It's wonderful."

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The MFE has an advantage over a more traditional exhibit — it is a natural draw to people. As soon as the exhibit parks, people begin flocking toward it asking questions. While this does at times make it difficult for staff to set up the exhibit while being inundated with public inquires, the opportunity for DFG staff to discuss current resources issues with the public is tremendous. At a recent display at the Capitol, children, tourists, even legislators and members of local government stopped to look at the fish and ask questions.

The MFE was originally the brainchild of DFG reservoir biologist Phil Bairrington, who attended fishing clinics and wanted to bring a fish tank to allow the participants to see what lived in the lake. He started by bringing a 40-gallon tank and setting it up on a table. The popularity of this simple exhibit was tremendous. Over time, the single 40-gallon tank evolved into two 150-gallon tanks mounted on an old boat trailer.

**Mobile Fish Exhibit in front of California Capitol.**







The new MFE improved upon the original. The MFE is a 1,500-gallon Plexiglas tank mounted on a flatbed trailer. It has a removable plastic sleeve which can be used to divide the tank into two sections - thus allowing staff to display native fish on one side and non-native fish on the other. The sleeve can also be removed to create one large tank. The tank is both freshwater and salt water compatible and the filters, chillers and pumps are on board in specially designed storage units. A Sacramento Company is outfitting the exhibit with electronic sensors to allow staff to monitor pH, temperature and other water quality issues.

The professionally designed educational tool was three years in the making, at a cost of about \$100,000. The tank and special towing vehicle were funded through the Sportfish Restoration Fund, an excise tax on the sale of motor boat fuel and fishing equipment.

*DFG photo by Debra Hamilton*

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Local firefighters fill the tank.

*DFG photos by Debra Hamilton*



DFG staff add the fish and other creatures for the exhibit.





The exhibit is divided into two tanks which allows DFG to show which animals are native, and which, like the red eared slider, are not.

"Other than Missouri, mobile fish exhibits are very rare in the U.S. because it is quite a challenge to maintain a mobile aquatic ecosystem," said Rick Parmer, DFG Central Coast Interpretive Services supervisor. "We are proud of the hard work of many DFG employees to help make this one a reality. However, the payoff in educational value is considerable since it can bring the fish to the students when field trip funding is becoming rarer and rarer."

The MFE is hauled empty to the display sites, with the fish carried in a special insulated tank on the back of the tow vehicle. The trailer is leveled and filled with water. A fire hose will fill the tank in about 20 minutes. When limited to a garden hose, staff allows up to three hours to fill the tank. After conditioning the water, the fish are netted from the carrying tank and placed into the display. With the pumps, oxygenators, filters and chillers all working together to provide a safe temporary haven for the fish, the exhibit is ready. It takes about two hours for one person to set the unit up once it reaches its destination.

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***“We live in a visual society . . .”***



Students at the Capitol watch as a sturgeon swims toward them.

Robin Wade points out species and talks about aquatic issues with a student in the Bay Area.







Patrick Foy takes the opportunity to address several children at once, explaining the exhibit and the fish inside the tanks.

*DFG photos by Debra Hamilton*

The unit is large enough that it draws a crowd anywhere it is displayed - even at large shows such as the International Sportsman Expo, Home and Garden Shows or county fairs. Yet it is small and agile enough to be maneuvered into school yards or shopping malls.

The exhibit is very popular with schools as it works to enhance existing courses of study on watersheds and habitat. DFG is currently developing curriculum materials targeting the 3<sup>rd</sup> and 5<sup>th</sup> grades that will be correlated to meet state educational standards. An assessment tool is also being developed to help DFG accurately gauge the effectiveness of the exhibit and staff presentations.

The MFE is housed in the Central Coast Region but is available on a limited basis statewide. For more information contact Ethan Rotman at (415) 892-0460. 🐻

*Ethan Rotman is an interpreter in DFG's Central Coast Region.*

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